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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/917,004 | 07/27/2001 | Stephen Patrick Hack | 10017541-1 | 9944 |

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HEWLETT PACKARD COMPANY
P O BOX 272400, 3404 E. HARMONY ROAD
INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

| EXAMINER | |
|---|---|
| MASKULINSKI, MICHAEL C | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2113 | |

DATE MAILED: 12/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/917,004 | HACK ET AL. | |
| | Examiner | Art Unit | |
| | Michael C Maskulinski | 2113 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *22 September 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☐ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

**Final Rejection**

***Claim Rejections - 35 USC § 103***

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jibbe, U.S. Patent 6,367,033 B1, and further in view of Hill, U.S. Patent 4,542,456.

Referring to claims 1 and 6:

a. In column 3, lines 7-12, Jibbe discloses a computer system used to evaluate data collected from a source computer system (method of debugging a system by analyzing transactions of a serial intra-system bus).

b. In column 8, line 67 continued in column 9, lines 1-3, Jibbe discloses that the data captured from the source computer system may involve data frames and/or data packets at various layers of a communication protocol (capturing frames of a serial intra-system bus in a capture data file).

c. In column 9, lines 3-5, Jibbe discloses template data structures that are developed to package data as data protocol units according to a designated protocol layer (extracting frames from the capture data file).

d. In the Abstract, Jibbe discloses a bus analyzer used to capture data from a source computer system to diagnose a problem arising in the source computer system. However, Jibbe doesn't explicitly disclose checking frames for out-of-bounds addresses. In column 13, lines 31-33, Hill discloses range checking capabilities for checking for out of bounds addresses. It would have been

obvious to one of ordinary skill at the time of the invention to include checking for out-of-bounds addresses of Hill into the system of Jibbe. A person of ordinary skill in the art would have been motivated to make the modification because a memory has only a specified number of addresses. Any address that lies beyond this number wouldn't have a corresponding location in the memory and would return an error. Therefore, there is a need to detect out-of-bounds addresses to prevent errors.

e. In column 11, lines 38-47, Jibbe teaches decoding an address of frames to identify a particular slave device.

f. In column 12, lines 1-10, Jibbe discloses filtering data transfers involving a particular target ID (tracking state changes indicated in frames with a computer model of the slave device).

g. In column 12, lines 1-10, Jibbe discloses the use of target ID's to filter transactions. It would be inherent to the system of Jibbe to have a library of device models or target ID's of the slave devices.

h. In column 12, lines 49-65, Jibbe discloses that the macro-level generator may be configured to play back data through the reference system, monitor responses from the reference disk array, and produce an indication signal when a particular event is detected such as an error condition under study (recording state error information when state changes indicated in frames are not permissible state changes of the computer model).

i. In column 3, lines 33-52, Jibbe discloses a computer program embodied on an computer readable medium used to carry out the above method.

Referring to claims 2 and 7, in column 8, line 67 continued in column 9, lines 1-8, Jibbe discloses that the data captured from the source computer system may involve frames and/or data packets. Template data structures are developed to package data as data protocol units according to a designated protocol layer (the step of assembling packets that are encapsulated in the frames).

Referring to claims 3 and 8, in column 9, lines 36-61, Jibbe discloses comparing responses generated in the reference system to those produced in the source computer system (the step of validating assembled packets).

Referring to claims 4 and 9, in column 12, lines 49-65, Jibbe discloses that the macro-level generator may be configured to play back data through the reference system, monitor responses from the reference disk array, and produce an indication signal when a particular event is detected such as an error condition under study (the step of determining if the state changes are permissible state changes).

Referring to claims 5 and 10, in column 12, lines 49-65, Jibbe discloses that the macro-level generator may also compare template data structure data structures as obtained in the reference system to template data structure data structures obtained in the source computer system and note differences there between (the step of determining if the state changes are permissible state changes is performed by tracking state changes indicated in the assembled packets in a protocol model, and comparing state changes against permitted state changes of the model).

***Response to Arguments***

3. Applicant's arguments filed September 22, 2004 have been fully considered but they are not persuasive.

4. On page 4, under the section REMARKS, the Applicant argues, "The system of Jibbe has no library of machine readable computer models of devices. Jibbe describes a method of debugging wherein data is captured by an analysis system and replayed into a reference system described as a 'hardware/software system'. Applicant believes that the reference system of Jibbe is not only not found in a library of machine readable computer models, but has hardware components and is therefore incapable of being placed in such a library." The Examiner respectfully disagrees. In column 12, lines 1-10, Jibbe discloses filtering data transfers involving a particular target ID. It would be inherent to the system of Jibbe to have a library of device models or target ID's of the slave devices. The target ID's of Jibbe determine what device is being tested or checked and thus provide the model of the slave device. The reference system is built from this information and other information such as protocols, operating systems, and configurations.

***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C Maskulinski whose telephone number is (571) 272-3649. The examiner can normally be reached on Monday-Friday 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert W Beausoliel can be reached on (571) 272-3645. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ROBERT BEAUSOLIEL
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

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